Industrial Concentration:
Fur trade, Canadian Banks and the Textile Industry, Pre-Confederation-1930

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By

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Abstract

This article examines antecedent conditions present during the colonial period and how it influenced finance institutions in Canada. The analysis of the Canada provides a case in which to compare to the other cases, already examined by Prof. Steven H. Haber- USA, Mexico and Brazil. The Canadian case concurs with Haber's argument that countries that facilitate heavy constraints on credit contribute to industrial concentration.

Key Words: Industrial Concentration, Finance, Canadian Economic History.

Introduction

1.1 Research Problem

"You realize, of course, that these two nations are fighting over a few acres of snow on the borders of Canada, and that they spend more money on this glorious war than the whole of Canada is worth."1

This sarcastic critique, and other variants of it, made by Voltaire, about the strategic and economic value of French Canadian territories to the French Empire in the 18th-century is reflective of the prevailing view of Canada at the time; even the British officials, prior to signing the Treaty of Paris, debated intensely about the merits of taking Canada over Guadeloupe (Easterbrook & Aitken 1956, pp.108-109).

It is not difficult to see why Voltaire felt this way about French colonial policy. The British had occupied the most strategic locations2 on the East Coast- New Brunswick, Newfoundland, and New England in the U.S.- which forced the French to settle in the strategically precarious Canadian interior up the St. Lawrence River that left French merchant ships vulnerable to British privateers3. The French territory was quite large, expanding from Arcadia to Louisiana, which made it vulnerable to attack on many fronts4. Defending the French North American territories required significant military expenditure with little return on investment (Easterbrook & Aitken, 1956 p.69). Ultimately sound economic policy dictated the decision to hand over Canada to the English, or did it? The French chose the Caribbean

1 *Candide*
2 The British had easy access to the open sea, which made for efficient transport among colonies and the empire, and it was easily defended. (see figure 1)
3 Privateers were pirates sanctioned by the Crown
4 The French were sandwiched between the British colonies and rival Native Tribes, the Iraqious.
colony of Guadeloupe because it was economically valuable and easily defended. Given the information available at the time, Voltaire's observations would have indeed been a valid critique, in hindsight however he could not have been more wrong about Canada's economic potential.

The relative poverty of North American colonies compared to their Caribbean and Latin American counterparts, in the 18th and 19th centuries\(^5\), presents a pervasive contradiction for the dependency theorists and pokes the curiosity of economic historians. Why the change in fortunes? Why large economic disparity between the two regions? How did North America become economically prosperous while the Caribbean became less economically developed?

The curiosity has led to bevy of scholarly works on the Caribbean and Latin American economic development (cf. Engerman and Sokoloff 1997; Coatsworth 1993, 1998; Engerman, Haber and Sokoloff 2000; North 1988; Acemoglu, Johnson and Robinson 2000) and more generally works on divergence of economic development (cf. Diamond; Clark; North; Acemoglu, Johnson and Robinson; ). Among these scholars a bifurcation of economic thought has developed as to what factors can be attributed to long-term economic growth, factor endowments\(^6\) or institutions\(^7\).

According to Douglas North, America and Canada has benefited primarily from the institutional path dependencies inherited by the British (2000). Other scholars are justifiably suspicious (cf. Coatsworth1998; 1988; Kupperman 1993). There has been less than impressive economic performance from other former British colonies - Trinidad, Guyana, Jamaica, Belize and Providence Islands. Kupperman reveals that the Puritan ideology, which was successful in the New England colony, languished in Providence Islands (1993). Perhaps the riches of the sugar cane operations seduced the religious man to do evil deeds – slavery and privateering.

During the colonial period there was little deviation from British colonial policy throughout the empire yet there are varying economic outcomes. British mercantile policies- Navigation Acts, Trade Acts and the Corn Laws- could be described as exploitative as the Iberian colonial system. Yet only the New Englanders launch a rebellions campaign in protest against the British imperialists. Other colonies felt they were better off to remaining with the Empire.

\(^5\) See table 1
\(^6\) cf. Baldwin, 1956; Lewis, 1955; Domar, 1970; Engerman and Sokoloff; Acemoglu, Johnson and Robinson
\(^7\) cf. North; Acemoglu, Johnson and Weingast
(Easterbrook & Aitken, 1956 pp.110-111). It is a matter of perspective; the mercantile apparatus favored staple-exporting regions like Canadian and Caribbean colonies while it systematically discriminated against the rival commercial centers, like New England (Easterbrook & Aitken, 1956 pp.111-112).

Ultimately it was New England’s self-determination and self-governance that enabled it to accumulate capital and develop its territory. The lessons from the American Revolutionary War and civil unrest in Canada encourage the British to grant self-government to Canadians via Responsible Government. Had it not been for early independence, Americas and Canadians may have ended up as poor as their Caribbean colonial counterparts. It’s obvious, then, that the divergence can not be explained solely by referring exclusively to institutions.

Other scholars look to factor endowments to supplement the institutional approach of North. According to Acemoglu, “[i]nstitutions matter, and they matter allot, and history is the key to understanding where they come from and how they are shaped” (Engerman and Sokoloff, 2000 p.95). What Engerman et al and Acemoglu et al emphasize is that antecedent condition created by factor endowments influenced institutional development. Engerman and Sokoloff argue that European colonizers established profit-maximizing institutions amicable to a region’s most prevalent crops. Cash crops grown in the Caribbean and South American where inherently conducive to cash crops, like sugar and cotton, thus colonizers set-up extractive institutions, which happen to resulted in unequal distribution of land, and concentrated political power among a narrow slaving owning elite (Engerman and Sokoloff, 2000 p.220). Such cash crops were not feasible in North American during the slave period so land was more equally divided among European settlers; these antecedent conditions lay the bedrock for institutions that promoted individual property rights and egalitarianism (ibid).

However in North America there were other commodities akin to sugar and cotton like fur and gold that tended to concentrate power, the anathema of egalitarian societies. Acemolgu et al supports Engerman’s and Sokoloff’s conclusion but has a different interpretation. They theorize that Europeans where more likely to settle in North American colonies than in the Caribbean and South American colonies for different factors; they cite prevalence of disease

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8 The rebellions lead by William Lyon Mackenzie and Louis-Joseph Papineau
9 A form of administration that limited the Governors powers; much of the decision making powers were transferred over to an elected cabinet accountable to the people. While this was a great step in enfranchisement of Canadian people, the British still maintained legislative power via the Colonial office.
10 More than North wishes to acknowledge
11 Colonialists failed to grow sugar cane in Nova Scotia.
and density of the indigenous population (Acemoglu et al., 2000). They explain that ensuring individual property rights and wide enfranchisement was in the best interest of the majority, who where of European decent. Whereas the institutions in the Southern regions, where Europeans were sparsely populated, did not result in the establishment of individual property rights or mass enfranchisement because the ruling class did not feel it was necessary. Possibly because the slaves were not like them so it was easier to morally distance themselves from treating the slaves coercively. Another explanation could be that European settlers were often heavily armed, which checked the power of the colonial administration. Its difficult to know which interpretation is correct as Acemolgu explains,

“[t]he two lines of study are thus drawing close to an interpretation that is supported both empirically and historically and on which a number of researchers broadly agree. Institutional differences emerging from differences in colonization strategy have had an important effect on the economic development of these societies…It can be explain why Europeans set up extractive institutions in certain places in 1600, but why did these places continue to have extractive institutions in 1900 or even today? Why do institutions persist?… This story is not complete, however. It can explain why Europeans set up extractive institutions in certain places in 1600, but why did these places continue to have extractive institutions in 1900 or even today?” (Engerman and Sokoloff, 2000 p.98)

These are pervasive question that spark curiosity in the economic historian and keeps her mind searching for more clues to confirm existing interpretations. From this point of departure there are many facets of institution which can be discussed however in the interest of time this paper will discuss the institutional development of banking and finance in the colonial world a time period of much needed research as indicated by Acemoglu. My analysis of finance institutions in Canada tries to discover why industrial concentration persists and what the institutional arrangements that support it are.

1.2 Aim and scope

There has been much literature on this topic; one of the most comprehensive collections comes from Prof. Stephen H. Haber who has been investigating the nature of banking and finance in Latin America. Haber attempts to discover the causal factors of industrial

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12 The militias was pivotal in American Revolutionary War
concentration (1991; 2005a; 2005b). This study will derive its methodology and theoretical backing from Haber’s previous works. In an effort to add breath to the accumulate case studies this study will look at the Canadian case because it represents and intermediate case between the two extreme cases already studied: Mexico/Brazil and USA. The analysis from Haber’s case study gives the impression that only developing countries placed excessive constraints on credit, and only their industries were characterized by monopolistic ownership. The Canadian case provides a unique perspective because finance was almost exclusively restricted to commercial activities, which meant that the phenomenon observed by Haber was not exclusive to Latin America. This arrangement led to monopolistic activities and eventual monopolistic ownership of the textile industry. What’s interesting about the Canadian case is that although its industrial concentration resembled that of Mexico and Brazil- in the late 18th century and early 19th century, Canada’s per capita income is much higher today (see table 2). While it would be interesting to explore the causes behind this disparity it is beyond the scope of this paper. However this is an indication that, perhaps, monopolistic ownership in industry is not a function of egalitarianism or economic growth.

The paper will cover a brief history of early Canadian economic history in order to identify the antecedent conditions that influence the characteristics of banking and finance in Canada. Then it will proceed to an in-depth survey of Canadian banking history and the textile industry in Canada. Following that will been some interpretation of production statistics, calculation of the four firm industrial concentration ratios, and a comparison of the Canadian ratio with the ratio of the other countries –USA, Mexico and Brazil- previously calculated by Haber.

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13 Note that Haber does not explicitly distinguish between "good" or "bad" institutions per se but he does show that constraints on the formation of credit intermediaries produce monopolistic ownership in the cotton textile industries.

14 Industrial Concentration and the Capital Markets: A Comparative Study of Brazil, Mexico, and the United States, 1830-1930

15 Canada had very little manufacturing sector. At the time it could have been considered “developing” or “under-industrialize” (Austin, B. J. 1985)
Background

2.1 Previous research

The concern with industrial concentration is its tendency to foster monopolistic enterprise. Stigler notes that “[w]hen a small number of firms control most or all of the output of an industry, they can individually and collectively profit more by cooperation than by competition... These few companies, therefore, will usually cooperate” (1988). This phenomenon has been confirmed empirically, but only for industries that had no entry barriers (Chen et al, 1989 p.40). Chen et al found that, if there are barriers-to-entry, oligopolies competed with each other instead of co-operating.\textsuperscript{16}

For many scholars the concern with competition has been primarily with efficient pricing, and its tendency to drive down prices for the benefit of the consumer (cf. Kessel 1971; Stigler 1988); however, Schumpeter muses out loud that “[e]conomists are at long last emerging from the stage in which price competition was all they saw. As soon as quality competition and sales effort are admitted into the sacred precincts of theory, the price variable is ousted from its dominant position.” (1975 pp.82-85) To Schumpeter the benefit of competition lay primarily with its impetus for creative destruction, the genesis of innovation and agent of economic growth. It is this characteristic of competition which this paper is concerned with. In support of Schumpeter, Schmalensee has shown that the relationship between “seller concentration and profitability is [statistically] weak, and the estimated concentration effect is usually small. The estimated relation is unstable over time and space and vanishes in many multivariate studies”\textsuperscript{17} (1989 p.976).

Industrialization played a significant role in the divergence between North America and the Caribbean/Latin America; in trying to construct a theory about the institutional conditions that contributed to the diverges it helps to understand the characters of industrial development, particularly the ones that promotes or inhibits creative destruction. In this regard Haber looks that how the availability of finance affected industrial concentration.

Haber’s work draws on the work Davis’ and Lamoreaux’ who observation that much of the early finance history in the US involved “insider lending” (Haber 1991, pp.562-563). In

\textsuperscript{16} The entry barriers tested for were R&D and advertising

\textsuperscript{17}Richard L Schmalensee is probably most infamous for his testimony at the Microsoft anti-trust trial, and his debate with Franklin M. Fisher about the detrimental effects, real or perceived, of the software company’s monopoly
Davis’ comparison of British and American financial markets he notes that the concentration of growth sectors in American was due to a lacking national capital market. While bank legislation in the US prohibited national banking until 1862, Canada also had those provisions since 1817; yet, the Canadian finance sector narrowly restricted itself to short-term commercial loans (Easterbrook & Aitken, 1956 p.451). Lamoreaux gave the following comments on free banking, “entry into banking was essentially free, favoritism in credit markets-the usual affliction of such a system-seems to have been unimportant” (2006 p.647).

According to Haber the significance of the Free Banking era was realized once national capital markets emerged. It was the free banking characteristic that distinguished US industrial concentration from Mexican and Brazilian industrial concentration (Haber, 1991 p.6).¹⁸

Davis attributed industrial concentration to the role of individual American entrepreneurs, like J.P. Morgan and Andrew Carnegie, whose manipulation of finance enables them to consolidate funds among a few ventures (1966 p.272). Morgan and Carnegie supplemented the lack of an adequate finance system; to Davis they supplemented the national capital market via their connections.

Lamoreaux criticized theoretical frameworks that describe financial development in axioms.¹⁹ She noted that pre-industrial societies develop banking institutions in culturally dependant ways which resulted in kinship networks and insider lending (1986). To Lamoreaux insider lending does not carry the negatives connotations often associated with it, i.e. corruption.

Haber observed that insider lending, what he calls related lending, was also utilized by transitional / authoritarian regimes in order to placate a dictator’s political opponents via loans from the central bank (2005). Of course a shrewd dictator would ensure he did not abuse this power because he would risk devaluing the currency, which would reduce confidence in the currency thus jeopardizing his position in the future. Haber’s case studies also emphasize the notion that markets with constrained finance practices tend to foster concentrated industry (1991). Monopolistic financing and insider lending is significantly correlated with concentrated industrial sector.²⁰

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¹⁸ And Canada can be added to that list
¹⁹ Gerschenkron axiom of Economic Backwardness
²⁰ A recent empirical study, covering the period 1980 to 1997, among 20 different industrial sectors confirms that fact (Cetorelli and Strahan, 2005).
2.2 Theoretical background

Prof. Steven H. Haber observed that the "United States experienced the least severe problems in mobilizing capital for the textile industry. Through the United State did not develop a truly national capital market until 1890s, the U.S. cotton textile industry was somewhat of an anomaly in its ability to attract both equity participation and long term loans early in the nineteenth century. Unlike the vast majority of American manufacturing companies of the nineteenth century, which were sole proprietorships or partnerships, the large vertically integrated cotton textile producers of New England were organized as publicly held, joint-stock corporations from their very beginning in the 1820s" (Haber, 1991 p.560). Haber attributes this success to liberal banking regulations, “[t]he fact that entry in banking was essentially free, however, meant that it was difficult to restrict entry into the textile industry by controlling access to capital. The U.S. system did not provide for a completely equal distribution of investable funds, but it did allow a large number of players to enter the game” (Haber, 1991 p.563). During the Free Banking Era (1837-1863) the United States had an exceptionally decentralized banking system which provided an elastic money supply that was widely accessible thus creating an environment conducive to “creative destruction”. The “free entry” banking created competition, which encouraged diverse, financial services, to attract more customers in order to widen the margins and keep the business profitable. Thus potential industrialist has ample access to capital, and the right kind of finance, long-term finance.

In contrast Canadian financing was restricted almost exclusively to commerce, which favored short-term loans. Canadian industrialists were able to get financing via insider lending. These highly concentrated industries exhibit unfavorable characteristics like over-rationalization and over-production.

Haber concluded that there is "a clear link between the way a country financed its industrial development and the industrial structure that evolve[s]...As the barrier to entry created by unequal access to finance became less significant in Brazil and the United States, their levels of concentration decreased”. Similarly the Canadian banks systematically favored short-terms credit over riskier, long-term credit- the type of credit required of capital intensive industrial development. This credit policy was more favorable to the commercial sectors and less favorable to manufacturing sectors. The unevenness in access to domestic financial instruments forced entrepreneurs to seek capital from alternative sources, usually private
investors or foreign direct investment. Often it was mostly well connected businessmen who were able to finance such ventures.

**Transaction Costs and Insider Lending**

In all three papers –Haber, Lamoreaux and Davis - the issue of trust or stability was central to the motivation behind insider lending or related lending. In all cases the players attempted to reducing transaction costs. In Haber’s paper the Mexican dictator, Porfirio Díaz, offers related lending (*de jure* power), in order to secure his *de facto* power. Diaz substituted legitimate democratic elections or coercive action with related lending. This strategy works because it legitimizes the incumbent’s position by deterring he challengers. In Lamoreaux’ paper insider lending was use to substitute for security that was not offered by bankruptcy laws or other banking legislation thus banks chose to lend to their most secure debtors, friends and fellow business associates. In Davis’ paper, Morgan and Carnegie acted as agents who reduced transaction costs between creditors and debtors across interstate lines. In each case creditors created an apparatus to substitute for institutional deficiencies. But they were all subject to pre-existing conditions. In taking the lead from Engerman *et al* and Acemoglu *et al* this paper will also look at how factor endowments influenced the development financial institutions.

**Staple Theory**

The second part of this thesis will explore the path dependencies created by the staple-trade and British colonial policy that lead to a highly centralized, branch-banking system in Canada; an arrangement which led to high industrial concentration in the cotton industry.

“Though not denying the significance of national heritage, nor of idiosyncratic conditions that are unique to individual countries, they have begun to explore the possibility that initial conditions, or factor endowments broadly conceived, could have had profound and enduring impacts on long-run paths of institutional and economic development in the New World” (Engerman and Sokoloff, 2000 p.220). This is the essence from which the staple theory was conceived, a theory which has dominated the Canadian economic thought for much of the 20th century. The theory was first articulated by W.A. Mackintosh, who saw staples as the driving economic force in Canada which attracted,

21 The cost in this case would be loss of political power.
22 Lack of a national capital market made financing expensive.
“high rate of investment induced by improved expectation of profit from the exploitation of natural resources,...Prospective profitableness in the exploiting industries created markets for other industries and for a time investment fed on itself ...the investments of the great expansion had built up a greatly magnified exporting economy...”(Altman 2003, p.251)

Then the theory was further elaborated by Harold A. Innis but he was not as enthusiastic about the ubiquity of staple exports. Innis was concerned about the external dependence and occasional instability associated with the staple trade (1930 pp.1-19; 1940 pp.1-94). R.T. Naylor was also concerned with the staple trade and particularly with the Canada’s dependences on British creditors (2006). This dependence on the staples and British credit was a significant actor in the development of the Canadian banking system. Like Davis, Naylor found the Canadian banking scene was also dominated by financial strong men, like Sir A.T. Galt and David Morrice, but their prominence was not due to scarcity of a national capital market rather it was due to the consolidation of financial resource among a group of men with close ties to the London credit market (ibid). While J.P. Morgan’s position was contingent upon his ability to secure finance, A.T. Galt’s position was contingent upon his ability to manipulate the political process and restrict entry into the banking sector.
2.3 Hypothesis

Hypothesis one: that the antecedent conditions created by the staple trades resulted in significant consolidation of financial resources among elite Canadian merchants.

Hypothesis two: that the new elite class utilized their economic power to influence the political process, and ossify their role as the primary bankers and financers in the country by closing entry to the banking sector and monopolizing the issuance of bills of exchange.

Hypothesis three: that the path dependencies established by the previous process, hypothesis one and hypothesis two, resulted in industry consolidation of the cotton textile industry in Canada.
Methodology

The advantage of a case study is that it allows a researcher the liberty to define the method in diverse ways; however, Yin warns, “case studies have been viewed as a less desirable for of inquiry … [because] [t]oo many times, the case study investigator has been sloppy, has not followed systematic procedures, or has allowed equivocal evidence or biased views to influence the direction of the findings and conclusions.” (2005 p.10) Hakim quips that “[w]hen used in an intellectually rigorous manner to achieve experimental isolation of selected social factors, they offer the strength of experimental research within a natural settings” (2000 p.59).

Case studies can be approached in three ways explorative, descriptive and casual (ibid). Alternatively, general explanations can be tested by looking at deviant cases, which suggests that the exception disproves the rule (Hakim, 2000 p.60).

Since case studies offers such flexibility researchers are free to define their study in many ways using most types of data, qualitative and quantitative (Hakim, 2000 p.61). This study will combine the richness of an in-depth survey and rigor of descriptive statistics to test a casual hypothesis. The general rule about case studies are that the “greatest amount of prior knowledge is required by cases studies that test causal propositions by experimental isolation in real-life setting” (Hakim, 2000 p.62). The cases enumerated before provide the “prior knowledge” necessary to test this casual proposition.

Both qualitative and quantitative data are important because it provides a higher level of triangulation\(^2\) that would further buttress Haber’s claim (Hakim, 2000 p.61). Each variable on its own is too abstract to offer much inference power but together they facilitate a well

\(^2\) Denzin written extensively on this topic he identified four basic types of triangulation:
Data triangulation: involves time, space, and persons
Investigator triangulation: involves multiple researchers in an investigation
Theory triangulation: involves using more than one theoretical scheme in the interpretation of the phenomenon
level of triangulation. The uses of multiple sources of evidence make case studies one of the more powerful research designs (ibid).

There is an enormous variation for cases study designs which make it difficult to summarize key strengths and weaknesses; so much depends on the degree of fit between the hypothesis and the case (Hakim, 2000 p.62). For this case study much of the ambiguity is settled by research already done by others who have set some benchmark. In order to guard against the pit falls of numerated by Yin this study is grounded in the theories of Haber, Davis and Lamoreaux.

3.1 Implementation

It would be useful to review Haber’s research designed and to understand his rational. The rational for choosing the textile industry was that capital equipment was easily divisible, and minimum-efficient scales were small in cotton textiles and hence economies of scale were exhausted at small firm sizes (Haber, 1991 p.560). Since the study is trying to measure the effects of restricted finance it is necessary to choose an industry that has virtually zero entry barriers minus the actually barrier intended to measure. The cotton textile industry is ideal because entry requires capital intensive investment. According to Haber “no significant barriers to entry existed in cotton textile production: no important patents covering the industry’s technology, no tight controls over the supply of raw materials, and little product differentiation through advertising. The only significant barrier to entry was access to capital; the industry therefore makes an excellent test case of the relationship between capital market development and industrial concentration” (ibid). Haber chose the time periods 1830-1930 because it had not been researched before (1991 p.559). This study extends that period in order to capture the antecedent conditions that influenced the finance institutions in Canada. Haber also used the variable, “number of banks”, as one proxy for testing restricting entry into the financial sector. For the Canadian case this is not sufficient because there were two types of banks in Canada, private and chartered. The chartered banks were much more powerful and had exclusive privileges. Thus this study looks at the activities of chartered banks in detail. In order to show how much more influence chartered bank have over privates banks (non-chartered banks). Later in the paper market share will be presented to illustrate how much influence chartered banks had over non charted institutions.

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24 Four-firm concentration
The four-firm concentration ratio is perhaps the most telling measure of industrial concentration unfortunately the data was not available to calculate the ratios for all the years that Haber calculated but there is some quantitative comparison that can be made between the Canadian case and Haber’s case studies. The four-firm concentration is calculated by dividing the output of the four best performing firms in the industry with the total output for the given year. One could use five firms or two firms it does not matter as long as the same criterion is use for all the countries. Also the output unit does not matter either along at the same unit is used across the board – i.e. value or production or yards of cotton products produces.

Much of Haber’s study depends on qualitative research - historical accounts and secondary sources- as is in this study. One of the most interesting artifacts obtained for this research is the Royal Commission on the textile industry, which the Canadian government commissioned in 1935 to assess the claims of textile companies that tariffs were too low. More about the source of data is discussed in the next section.

3.2 Data

Source material

All of the data used for this study comes from secondary sources. The Commissioner’s report was used to gather quantitative data in order to calculate the four-firm ratios. The report also provided a comprehensive history of the textiles industry in Canada.

Another noteworthy source was from a survey of the textile industry commissioned by the Government of Canada called The Primary Textile Industry in Canada History and Heritage by A.B. McCullough. Some qualitative data was gathered from there about the history of the textile industry. Quantitative data was also gathered like the number of mills in operation for a give year.

Quantitative and Qualitative data on banking was obtained from The History of Canadian business, 1867 – 1914 and Banking Structures in Major Countries by George G. Kaufman. Other notable secondary sources are Canadian Economic History, by W. J. Easterbrook and H. J. G. Aitken and Essays in Canadian Economic History by Harold A. Innis.
Empirical Analysis - Qualitative

4.1 Factor Endowment

Early Canadian Economic History

What first drew Europeans to the eastern Canadian shores were the Maritime fisheries teeming with cod fish. These fisheries were characterized by dispersed concentration of small units, relatively low investment of fixed capital, substantial freedom of entry, intense competition and considerable geographic mobility (Easterbrook & Aitken, 1956 p.38). Early French colonialists were, unable to establish settlement in Newfoundland, and annoyed by competition of other colonial powers, proceeded to settle up the St. Lawrence River in the Canadian interior. Shortly after settlement the French encountered Native Americans who introduced them to beaver fur. It was not until 1550 that beaver hats became fashionable and by the 1600's beaver hat was the fashion rage of Europe driving adventurous entrepreneurs to seek out the fur-rich lands of North America.

The French came to dominate the trade throughout New France, the Ohio Valley, Manitoba and Saskatchewan; but, it was France's conflicting policies that eventually lead to its loss of the fur trade monopoly and eventually their decline in North America (Easterbrook & Aitken, 1956 p.42). The primary goal of the French powers was to build a continental empire in North America, which emphasized religion and politics more than economics, in contrast to the British mercantile approach (ibid). The French government arbitrarily granted charters for exclusive rights to fur trade on conditions that the company made concerted efforts to bring French settlers to New France, to help the ailing agricultural sector (Easterbrook & Aitken, 1956 pp. 43-45; Innis pp.280-281). The French colonial administration believed they could force agricultural development in New France. Indeed agriculture was the backbone of New England’s prosperity; but, there was a fundamental difference in New France that countered its ability to develop agriculture. Agricultural work in the new world entailed backbreaking labor for little compensation, and compared to fur trade there was little incentive to continue such hard work. When the chartered fur trade companies did transport settlers to New France they unwittingly brought more competition because laborers often abandoned agricultural work for the lucrative fur trade. Charter companies who failed to comply with the government's conditions often had their monopolies revoked (Easterbrook & Aitken, 1956

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25 The labours-turn-trades would either join other chartered ventures or trade illegally.
In other instances charters were revoked due to political pressure from merchants and fishers who were excluded from the fur trade. Unlike England, France was primarily a continental power and the colonial policies were subordinate to continental affairs. Due to its “empire-building” policies French colonies were expected to be self-sufficient and internally focused; it produced few commodities, and focused on domestic markets rather than export-import trade. Conversely, the British engaged aggressively in international trade. British mercantile policies were best suited to the staple trade because the British focused on exporting commodities back to England not developing colonies or building empires per se (Easterbrook & Aitken, 1956 70-71).

**British entry into the Fur Trade**

French adventures, Pierre Esprit Radisson and his brother-in-law Médard Chouart des Groseilliers, explored the new territory in the Canadian interior where they found new sources of fur, they learned from the native Cree tribe that the best furs could be found in the Hudson Bay region (Easterbrook & Aitken, 1956 pp. 78-84). Upon their return to New France the governor confiscated their furs on grounds that they were trading without a license (ibid). When Radisson tried to convince French officials of the new discovery he was met with indifference (ibid). The French Secretary of State, Jean-Baptiste Colbert, was preoccupied with farming in the colonies and was opposed to exploration and trapping.

Disappointed with their treatment from French officials, Radisson and Groseilliers eventually found their way to the British Royal court where they convinced King Charles II to launch and expedition into the Hudson Bay (Easterbrook & Aitken, 1956 p.82). *The Governor and Company of Adventurers of England trading into Hudson's Bay*[^26] was subsequently incorporated on May 2, 1670, with a Royal Charter from King Charles II (ibid). The charter granted the company a monopoly over the Indian Trade[^27], especially the fur trade, in the region surrounding the Hudson Bay in northern Canada, also known as Rupert's Land. By 1821 the Hudson Bay Company would hold a virtual monopoly over fur trade in Canada with the acquisition of the North West Company of Montreal.

[^26]: a.k.a. The Hudson Bay Company
[^27]: This was trade with North American Natives
Post-Seven Years' War

Up until the 1760s most fur trading in the St Lawrence was done by small independent operations. After the conquest of Canada, by the British, the St. Lawrence fur trade was taken over by a group of English, Scottish, and American merchants who rebuilt the trading system, originally created by the French (Easterbrook & Aitken, 1956 p.163)\textsuperscript{28}. These new traders independently extended the trail as far north as the Athabasca region and as far west as the Rocky Mountains. As the beaver became over hunted trappers realized they needed to go deeper into the hinterland and trade was becoming costly. For the St. Lawrence fur traders the extension of the trade region fundamentally changed the characteristics of the business from a regional trade to a continental venture requiring large-scale organization, for the conduct of trade over long distances by means of expensive transportation systems. It could only be carried on successfully by large enterprise with an ample supply of working capital and elaborate marketing connections (Easterbrook & Aitken, 1956 p.38). The larger capital requirements which accompanied the extension of the trade to the west forced the hands of the independent fur traders to consolidate their resources creating The Northwest Company. For additional capital requirements they relied on finance from British institutions in London, who where glad to provide the credit because fur trade was a profitable business. The Northwest Company was basically a non-chartered joint-stock company which consolidated trader’s resources at the beginning of a season and divided all of the capital at season-end\textsuperscript{29} (Easterbrook & Aitken, 1956 p.163). Most of the members of the Northwest Company syndicate were Montreal merchants\textsuperscript{30} (ibid). In a speech by Alexander MacKenzie, Canada’s second prime minister, he explains the changing nature of the fur trade business that foreshadowed the role of merchants in Canada’s future,

“Experience ... has proven that this trade, from its very nature cannot be carried on by individuals. A very large capital, or credit, or indeed both, is necessary, and consequently an association of men of wealth to direct, with men of enterprise to act, in one common interest, must be formed on such principles, as that in due time the latter may succeed the former, in continual and progressive succession. Such was the equitable and successful mode adopted by the Merchants from Canada” (Gough, 1997 p.2)

\textsuperscript{28} See figure 2
\textsuperscript{29} There was no company savings or capital accumulation
\textsuperscript{30} After the creation of Northwest there where three main competitors: Northwest, Hudson Bay and Michilimackinac, and they competed viciously.
The merchants who dominated the fur trade were already plugged into the British finance pipeline and where poised to become Canada’s future bankers\textsuperscript{31}.

4.2 Banking Systems

Early Canadian Banks

In no other sector, in Canada, has mercantile policy been more pungent than finance. Europe’s obsession with maintaining a positive balance of trade caused a chronic lack of specie; this was true during the French and English regime. To prevent stifling the economic growth colonial administrators and merchants resorted to other instruments, like credit and barter, to ameliorate the deficiency. The French briefly experimented with playing cards as a form of fiat currency but it soon failed. These fiat currencies often created problems of their own, like inflation. The Seven Years’ War led to a large inflationary issue of paper money, which were ultimately redeemed at approximately one-quarter of its face value (Easterbrook & Aitken, 1956 p.447). This was one of the main factors that lead to the French decline in North America.

The first decade of English rule was not much better than the French; they struggle with mixed currencies and widely varying exchange rates among the colonies. For example, one Spanish dollar was worth five shillings in Halifax and eight in Montreal (ibid). The uncertainty of currency valuations and shortage of specie lead large merchant houses in Montreal and Quebec to issue \textit{bons} notes, good at their face value in merchandise. These first note issuers became Canada’s first bankers. These merchant houses established a stable method of exchange and credit from which they provided credit to small traders who advances goods to hard-pressed settlers.

The small traders where financed by the Montreal and Quebec merchant houses who were furnished with "long credits" from English firms. Local merchants or traders bought the surplus commodities from farmers, and disposed of salt, rum and dry goods, which were the "long credits" initially provided by the British exporters (ibid).

\textsuperscript{31} Like Todd, McGill and Co.; the Frobishers; Benjamin and Joseph Frobisher;
Since capital was lacking and specie was scarce the traders and merchants were in an exceptionally favorable position to control currency via their issue of bons. Ironically these notes backed by mere agricultural commodities provided more stability than gold and silver coinage. However this new currency was no panacea it had its limitations. Bons could not be used for inter-colonial trading because it was not recognized by other colonies in American and the Caribbean, and it created a monopolistic disposition between merchants and settlers, who where become increasingly dependent on the merchants issuing bons. There were few merchants around so the settlers and famers where locked into trade with merchants. The more people traded the worst the situation got because bons in circulation meant there were more people dependent monopolistic merchants for goods.

In 1792 the chief commissary officer, John McGill, charged with purchasing goods for the government observed that settlers were often exploited by the merchants (Easterbrook & Aitken, 1956 p.448). Although early agriculture was largely self-sufficient, evidence that farmers were becoming indebted to merchants was apparent (ibid). The latter complained that because of the scarcity of money they could not collect their debts, and farmers in turn protested the seizure of grain in payment of overdue claims (Easterbrook & Aitken, 1956 p.445).

In order to protect settlers and increase the efficiency of the market he recommended that the government make payments in transferable currency, described by Adam Shortt as the first reliable currency in Upper Canada (Easterbrook & Aitken, 1956 p.448). However these notes were not enough to satisfy the needs of trade throughout the colonies. In 1792 the first attempts to establish a bank of issue, the Canadian Banking Company, was attempted by a large English commercial house in Montreal, but the venture was abandoned due to war in Europe and the instability it might have caused. Thus the essential financial functions continued to be performed by Montreal merchants like Forsyth, Richardson and Company (Easterbrook & Aitken, 1956 p.448).

It was the unlikely event of war that encouraged the acceptance paper notes; the Canadian government needed to finance the War of 1812 so they issued Army Bills, legal-tender notes; all but the smallest of which bore interest and which were in convenient denominations and there convertible into bills of exchange in the United Kingdom (Easterbrook & Aitken, 1956 p.449). Although store credit was to remain the most important source of carry-over funds for the settlers, bank credit was essential if traders and merchants were to finance their purchases.
from farmers (ibid). In its infancy, the Canadian finance sector could not meet these needs; thus Canadian merchants and traders depended on British creditors.

**Commerce and Finance**

The British banking system was made up of four components: a central bank which dealt with public finance, London-based joint stock commercial banks, and private banks involved in international commodity trade\(^{32}\) and independent industrial finance banks also known as *country* banks. In contrast, the Canadian Banking system lacked a true central bank until 1934 and its chartered banks were essentially an extension of the London-based joint stock commercial banks (Naylor, 2006 p.67). Canadian banker’s predilection toward a strict lending doctrine meant a lender of last resort was not necessary Canada as it was in the volatile American finance sector.

The close alliance of finance and commerce appears early in Canadian history and was a key factor in the development of the banking sector, which had already begun to take form in the early nineteenth century (Easterbrook & Aitken, 1956 p.445). According to Naylor “[t]he chartered banks of Canada were established with close connections to the commercial community” who provided short-term credit suitable for the staple trade-furs, timber and grain (2006 p.67). Indeed many of the first Canada banks were ventures started by merchants: the Bank of Montreal was established by fur traders and dry goods importers; the Bank of New Brunswick, Ottawa bank, and Quebec bank were also all established by timber traders; Bank of Hamilton was established by dry goods merchants (Naylor, 2006 p.67). In 1817, the Bank of Montreal was the first to be granted a charter, which granted the right to issue notes and accept deposits\(^{33}\). In 1822 three other establishments followed, Quebec Bank, Bank of Canada and Montreal Bank\(^{34}\).

The early Canadian banking system lacked an open lending policy toward industry. “As a colony, its banking system evolved in imitation of and through regulation by the metropole” (ibid). During the colonial period its infrastructure and credit systems were designed exclusively from staple-extraction to serve the resource needs of Britain and its empire. Even after *responsible government* was granted to the Canadian colony the British government held considerable power over Canadian political proceedings, especially banking legislation;

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\(^{32}\) These were the Glyns, Mills, Barings and Rothschilds

\(^{33}\) The Bank of Montreal was the largest bank and acted as the government's bank.

\(^{34}\) Different from The Bank of Montreal
until confederation in 1867 the British Colonial Office reviewed all proposed legislation before passage of the bills (Easterbrook & Aitken, 1956 p.450). The restriction on legislative powers meant Canadians were not likely to experiment with other forms of banking that deviated from the British commercial banking system, like free banking which became more prevalent in the US, or that interfered with the staple extraction machine. All of this ultimately served to consolidate financial power among a few merchants who used their commercial and political influence to restrict entry into the financial sectors through the political process (Naylor, 2006 p.108).

Like the bons issued by early merchants these new banks had the rights to issue their own banks notes, and they wrestled tirelessly with the government to maintain those rights. With the right to issue their own notes, banks create new money at zero percent interest and loan that money out for interest, it was a hugely profitable arrangement. Proposals made after Confederation to transfer note issuing rights to the government were fought vehemently by the banks. In 1869, the Minister of Finance, Sir John Rose, proposed that a reserve of securities should be setup to back notes held by chartered banks. Sir Rose, who also served on the boards of the Hudson Bay Company and the Bank of Montreal, would have made the Bank of Montreal responsible for the reserve making it a kind of quasi-central bank (Naylor, 2006 p.68). This proposal was also struck down, and met the disapproval of many banks most notably Ontario banks, which were mostly engaged in financing agricultural operation. This was the beginning of a rivalry between Montreal and Ontario banks that would result in many Ontario banks being hostilely acquired by the Bank of Montreal (Naylor, 2006 pp.95-104). Sir Rose, eventually left MacDonald’s cabinet to pursue a private venture and was subsequently replaced by Francis Hincks who created Canada’s first Bank Act, which was viewed as a compromise between the competing banking factions. The Act stipulated that the government would issue notes of the lowest denominations, while charted bank would maintain their rights to notes without reserve requirements. “In every other respect, however, the Act was exactly that drafted by the Bank of Montreal. Molded by the bankers themselves, the legislation governing the actions of the banks conformed to the predilection of the banks toward very short-term loans” (Naylor, 2006 p.70). The arbitrary issuance of notes had inflationary effects often the assets of failed chartered banks would not cover the liabilities of issued notes. Although banks were opposed to a fixed reserve they did establish

35 Instead bank notes were backed by the bank’s assets
36 Ideal for commercial finance but not industrial finance.
a collective fund as a percentage of their circulated notes to protect depositors and placate public anxiety about bank failures (Walker, 1899 p.82). The consolidation of these resources meant that banks that were part of the pool were adversely affected by other bank’s poor lending practices. In 1890, the Canadian Bankers’ Association was voluntarily established by a group of Montreal bankers (ibid). The CBA was used by the banks as a tool to solidify their monopoly in Canada and restrict entry into banking altogether. According to Naylor,

“The political power of the larger banks and the Bankers’ Association can hardly be exaggerated. The bank acts were written by the very banks supposedly regulated by them...Notable among the joint-committee members was of course, Francis Hincks, who doubled as Minister of Finance and as a director and subsequent President of the City Bank...The lobby’s powers grew steadily, culminating in the incorporation of the Canadian Bankers’ Association in 1901 with the astonishing power to pronounce on fitness of, and, de facto, to block the entry of new banks seeking charters” (Naylor, 2006 p.74)

With the commercial bank’s monopoly on finance they indirectly influenced the concentration of industry in Canada. The attitude among big commercial banks about industry was indifferences. In 1870’s loans were more readily available to merchants than manufactures because it was thought that long-term loans to industrial ventures would lock-up capital and were unsecure. Since commercial loans were re-paid quickly the banks favored that kind of business (Naylor, 2006 p.107). Commercial bankers felt that factories and equipment should be funded by retained earning and savings. The manufacturers were expected to provide their capital up to the point of acquiring buildings and equipment, and a part, at least, of working capital (ibid). This attitude persisted throughout the late 1800s and early 1900s. The attitude of American commercial bankers did not differ much from that of Canadian commercial bankers; the difference was in American there were many interests at play in the finance and banking sector thus many more interests severed. Banking policy in American was not dominated by narrow-minded commercial interest. There were many institutions severing many financial interests. The Canada system created a bottle neck that reduced efficiency of finance and subsequently prevented the industrial development of the country overall.

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37 Like inflationary issuance of bank notes and other unfavorable lending practices.
38 Commercial (chartered) banks control the majority of the Canadian market share.
American and Canadian Banking Systems

Like Canada during the colonial era "[t]he American colonies had no banks for clearing business transaction and the underdevelopment of short-term credit arrangements hampered commerce" (Klebaner, 1974). The British did not allow North American colonies to establish banks; it was this type of restrictive policy - as well as others like the Navigation Act, Corn Laws, Trade Acts and increased tax- that led to the American Revolution (Easterbrook & Aitken, 1956 pp.109-112). In 1781, congress move to pass an act to establish the first central bank of the United States, the Bank of North America, in order to finance the Revolutionary War. The Bank had a monopoly on issuing bank notes which where backed by deposits of gold and silver. The Bank's monopoly was a source of constant debate in US politics. Robert Morris and Alexander Hamilton touted the benefits of the financial stability offered by central banks; however, others, like Jefferson and Andrew Jackson, were critical of its consolidation of power (Kaufman, 1992 p.496). Early American politicians where skeptical of big government they felt the central bank's unchecked monopolistic powers went counter to Republican values. The ensuing political debate would result in the re-establishment of the central banks on three different occasions. As a result “the U.S. banking system is very often one of perplexity. Despite its high state of development, the system seems unnecessarily cumbersome and complex. Institutions clearly competing with one another are subject to different and largely independent regulatory bodies” (Kaufman, 1992 p.495).

Free Banking Era

The period 1837-1863 is known as the Free Banking Era because of the ubiquitous Free Banking legislation passed during that period. Before this act institutions needed to acquire a charter in order to act as a bank with this new legislation entry into the banking sector was “free”. Kaufman notes that the requirement of a bank charter “was conducive to bribery and favoritism and had the effect of greatly limiting entry into banking”, which is precisely what happened in the Canadian case (1992 p.497). Free Banking created problems of its own. Massive liberalization of entry into banking produced an explosion of new banks and notes, followed shortly by large number of bank failures. Shortly after Michigan's Free Banking legislation in 1837 40 new banks where chartered; in 1839, 36 of those banks failed resulting in a loss of 45% of Michigan's annual income (ibid).
The Canadian and American banking systems also had distinct financial structures that affected industry in different ways via financing. Paul B. Trescott describes the banking system under Free Banking legislation:

"On the whole, the banking system mirrored the society as a whole - diverse, disorderly, growing rapidly but at an uneven pace of fits, jerks, and starts - enterprise and progressive, but not overly scrupulous. Bank credit had played a big role in financing the westward movement of population, cultivation, and transportation. It underwrote much of the high level of international commerce and shipping, and it contributed significantly to the capital needs of up-and-coming industrial development” (1963 p.38).

In contrast the Canadian banks were largely the protuberance of merchant's capital whose finance coagulated around staple extraction-trades of the imperial commercial era: fur, wheat, fishes and timber; and in the post-confederate era: iron ore, coal, hydro-electric, Nickel, Silver, Aluminum, Pulp and Paper, Petroleum and Natural Gas. It was the economic structure of imperial trade rather than an effort to copy the charter of American banks that determined the banks role in the Canadian economy.

**Factor Endowments and Antecedent conditions**

What is important to note is how the staple trade affected political developments of Canada and America. While most colonies-Newfoundland\(^{39}\), New Brunswick\(^{40}\), Quebec\(^{41}\), Ontario\(^{42}\) and the Southern colonies\(^{43}\) - severed as primarily exporters of staples. New England did not have a viable staple; instead they farmed tobacco and fished (Easterbrook & Aitken, 1956 p.111). Easterbrook & Aitken, notes that New England would have developed along much the same lines as Newfoundland however,

> “there were two new factors in the situation which combined to produce an entirely different result. One was that the New England fisheries, unlike those of Newfoundland, had only recently been discovered and there had not been the same opportunity for a strong vested interest to develop.”(1956 p.36)

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39 Fish and timber
40 Fish and timber
41 Fur
42 Fur
43 Sugar and Cotton
Thus the New England colony took a different direction, one of trade and manufacturing (Easterbrook & Aitken, 1956 pp.36-38). Subsequently the New England colony developed an entrepôt that rivaled London.

When Britain started to issue discriminatory policies against New Englander they revolted. However the other staple exporting colonies did not revolt because of their continued dependence on trade with Europe. This also meant that the northern colonies were far more reluctant to join the American Revolution, and Canada thus remained loyal to the British crown. Canada’s loyalty to Britain meant that its banking structure was influenced by British legislation, and commercial relations with British international bankers. Post-revolution, Americans were highly distrustful of government and monopolistic enterprise. Thus they made it categorically clear in their bank charters that branch-banking was prohibited, while in Canada branch-banking became a distinctive feature of the Canadian banking scene. What this meant was that the centralization of the Canadian banking establishment prevented local and regional financial interests from flourishing. In Canada the money supply adapted passively to the needs of commerce rather then being amenable to an instrument of development (Naylor 2006).

Thus different factor endowments and antecedent conditions fostered diametrically different banking institutions, in Canada and the US. What’s interesting about the Canadian case is that it developed a centralized banking structure, much like Mexico, in a very systematic way, i.e. maximizing the staple export. Mexico’s centralized banking and lender-related finance was created by the dictator, Porfirio Díaz; Canada’s centralized banking and lender-related finance was created passively by merchants trying to maximize staple exports.

4.3 The Textile Industry

It is difficult to determine precisely when manufacturing took place in Canada because the census records report that 18% of the GNP was attributed to manufacturing 1850; however, Naylor questions that figure saying that 50% percent of that attribution came from saw mills and grist mills which he not did consider “manufacturing” because they were primarily processing for staples; the rest came from handicraft operations not “proper factories” (ibid).

The period 1750-1850 was one of immense change in the textile industry. Initially most processes were carried out using handicraft methods; however, by the end of the era mechanically powered machines performed almost all processes in modern factories although
handicraft methods survived (McCullough, 1945 p.19). When Canada started to develop its textile industry in the second half of the century, it imported advanced machinery from Britain and the United States (ibid). Given that prior to the development of the textile industry Canada had virtually no heavy manufacturing it imported almost all if its textile technology from abroad. The failure to mechanize in the face of growing competition from cottons was a major cause of the relative decline of woolen in Canada. (McCullough, 1945 p.16)

When Canada began to develop a significant textile industry in the second half of the nineteenth century it was able to import mature industry processes and advanced machinery from both the British and the United States (McCullough, 1945 p.18). Although mules where less efficient and better quality it took Canada a while longer then America to implement ring spinning mills (McCullough, 1945 p.19). Under the influence of "scientific management" Canadian cotton mills increased the number of looms per weaver even more in the late 1920s and early 1930s. Depending on the circumstances one employee could tend to 50-70 spinning mills (McCullough, 1945 p.21). In the late 19th century British and American industries tended to adopt new technologies slower than Canada (McCullough, 1945 p.21). This could be because they had already incurred huge sunk costs on older technologies, which they wanted to derive full benefits from. Looms had long working lives and mill owners were not inclined to changing them unless it was necessary (ibid). Later, when the Canadian textile industry was much older, it exhibited the same behavior of slowly adopting new technology, as America and Britain did previously. In fact, as a result of the National Policy44, what Naylor called Canadian Mercantilism, this behavior became more entrenched than American or British industries. Two of the major textile industries that existed in Canada were cotton and woolen, which were totally distinct in their origins, structure and operation until the late nineteenth century (McCullough, 1945 p.46).

**Woolen Industry**

The woolen industry started out as a handicraft industry in the farming communities of Ontario and Quebec, where they derived much of materials for their farming operations (Naylor, 2006 p.47). Largely self sufficient and decentralized these operations worked independently of the large commercial banks, and slowly accumulated their own capital to build factories. In Canada the textile industry emerge in the midst of other industrial

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44 This was Canada's tariff regime which highly favoured the textile industry.
infrastructure like saw mills and carding mills. Some early mills operated in conjunction with grist or saw mills.

**Early Woolen Mills**

Charles Goodhue built a combined sawmill, grist mill, and woolen mill at Sherbrooke in 1827, which was the largest woolen mill in Canada in the late nineteenth century (McCullough, 1945 p.49). The first woolen mill in Upper Canada was thought to have been the Barber brother’ mill built at Georgetown in 1837 (Naylor, 2006 p.47). James Rosemond established a saw and gristmill complex in the same year. Some of his employees left a few years later to establish their own mill at Almonte. The pattern of employees leaving their firms to establish their own small-scale manufactories typified much of early Canadian industrialization, and revealed how closely linked it remained to the artisanal mode of production, even toward the mid-nineteenth century (Naylor, 2006 p.47). In Ontario it was frequently farmers who became partners in the small-scale factories: their hope was that the factor system would provide cheaper and more efficient processing of their wool than the prevailing handicraft system (ibid). In Quebec the same pattern prevailed with the result that early factories were dominated by Quebecois entrepreneurs (ibid). By 1871, there were 271 woolen mills in Canada, in which a total of 4,443 people were employed. Many in handicraft shops; but the emergence of large-scale enterprise with outside capital had begun in 1866 when Sherbrooke businessmen Hugh Paton established a large mill in that town with the financial backing of Montreal magnet George Stephen. Carding and filling peaked in 1870 but began to decline 1880-1890 although the wool industry in general progressed. From 1890 the cotton sector surpassed the woolen sector. Foreign suppliers increased their share of the woolen market from 52% to 55%. The introduction of British preference45 in 1897 was a devastating blow to the woolen industry. But even with the tariffs at 31.8% for all woolen products, it was not enough to save the artisans for small town farmlands; the encroaching Montreal entrepreneurs, with Montreal money, and opportunistic British companies squeezed them out of the market (McCullough, 1945 p.259).

**Cotton Industry**

The cotton industry tells a radically different story. With the attitude and power of the chartered banks, one would think that no manufacturer would be able to acquire financing

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45 a kind of free trade policy with the British.
from the big Canadian commercial banks. However there was considerable financing in the cotton industry this was largely because cotton manufacturing was dominated by Montreal wholesalers who were closely allied with Montreal financiers in the 1870s (Naylor, 2006 p.108). The Exchange and Federal banks both made heavy advances in order to secure cotton on goods already stockpiled through the Montreal merchant David Morrice (Naylor, 2006 p.4). Because cotton could not be grown in Canada, there was no tradition of domestic production of cotton cloth although home weavers sometimes used imported cotton warp thread (McCullough, 1945 p.52). Since cotton depending on capital-intensive production, it started out as a factory basis industry. The first mill started with A.T. Galt’s promotion of a mill in Sherbrooke in 1844, a mill which closed a decade later (Naylor, 2006 p.48). Other mills opened in 1844 and 1860 but close just before the American Civil War (ibid). The war destroyed American cotton companies, and the competition along with it. This opened an opportunity for Canadian manufacturers and by the early 1870s there were 8 active cotton mills in Canada. By the early 1870s conflict arose over the control exercised by the Montreal merchants about the marketing of textiles in Canada particularly with reference for imported of foreign competing products because British exporters started to deal directly with retailers and manufactures in Canada (Naylor, 2006 p.48). Originally textile manufactures did not sell directly to manufactures or the public; they sold their products to the dry-goods merchants from Montreal who also imported cotton goods for the domestic market (McCullough, 1945 pp.86-87). The textile companies, angry with the way their goods were marketed, hired their own sales agents some even tried to sell their goods directly. In 1907, the Montreal Cotton Company also had its own sales department however they were for the most part unsuccessful. Industrialist lacked the financial wherewithal to extend long credits to the retailers like the dry goods wholesalers (Naylor, 2006 p.48). The failure was also due to the process of takeover by the wholesale group, which reduced the manufactures to juniors, and then branch managers (ibid). Between 1866-1878 virtually all textile industrial concerns in Canada were purchased by Montreal mercantile figures,

“George Stephen led the way into the woolen industry, becoming a partner with Bennett Rosamond of Almonte in 1866 in Rosamond Woolen Company. Rosamond’s interests also included the Almonte Knitting Company, which in 1882 was bought under Montreal control by the establishment of Donald Smit, Stephen’s cousin, as president, and other Montreal commercial figures as directors...In 1868...R.B Angus and Smith took over Lomas Woolen Mill and there Quebec Worsted Company. Stephen brought Sir Hugh Allan, Smith and Rosemond into the Canada Cotton Manufacturing Company at Cornwall in 1872...By 1878 Sir Hugh Allan had become president of Montreal Cotton
Company. It was a typical pattern: the presidency of the firm and key directorship would be occupied by a leading Montreal figure with commercial and financial connections, while the industrialist would assume the general managers or an equivalent post.” (Naylor, 2006 p.49)

Following the establishment of the government’s new trade policy the Montreal merchants took the opportunity to control production by raising prices. English investors and cotton machinery manufactures saw the opportunity to profit (Naylor, 2006 p.49). The great boom market began almost immediately followed by re-investment of profits estimated to reach as high as 90%, and by additional English finance (ibid). Since the British were facing a recession at home, cotton machinery manufactures were practically bumping equipment in Canada. Of course this was not a problem for either party because Canada had no cotton machinery industry. In fact the cotton industry had over-rationalized the industry so much that they did not realize the over-extended production until it was too late.

The change in management style from industrialists to staple-exporters is easily recognizable because in just over a decade Canadian cotton manufacturers exceeded the capacity of the domestic market (cf. Naylor, 2006 p.48; McCullough, 1945 p.57). The golden rule of the staple-export trade, exploit as much as you can, had failed the old Montreal merchants. But over production was the least of their worries because as a result of the over-rationalization cotton manufactures failed to diversify their product lines. So not only were there too many products, domestically, their goods were too insipid to compete with sophisticated foreign product lines. The losses were colossal as expressed here by Naylor,

“Morrice, a wholesale dealer, had held a virtual monopoly on distribution not only of cotton but of the output of other textile firms from southern Ontario and Yarmouth, Nova Scotia. The Montreal banks that heavily backed the activities of the Montreal commercial community in there cotton escapade had made large loans to Morrice on the basis simply of consignment from the mills, instead of bona fide sales. As long as Morrice got advances from the banks – whose directorates were intimately linked with those of the cotton companies – the accumulation of unsold goods went on.”(Naylor, 2006 p.51)

In the end Morrice lost the banks $180,000 dollars, and 36 mills for whom he acted as agent, another $150,000 (ibid). As a result of the massive losses incurred by the banks, they insisted on cartelization and cutbacks before they would consider advancing more money to the textile companies.

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46 The National Policy
47 In 1894 dollars.
To resolve this problem David Morrice and the Gault brothers organized the Canadian Cotton Manufactures’ Association, which was charged with policing the cutbacks of companies and fostering diversity of local products (McCullough, 1945 p.58; Naylor, 2006 p.170). Basically the member firms would shut down regular production of "Gray cotton" to produce a diversified Canadian-made inventory to compete with the foreign market (McCullough, 1945 p.58). This agreement failed because Morrice's neglected to cutback production; but, later agreements met better results (ibid). Magog Textile and Printing Company was the first cotton printing factory in Canada to converting low-value grey cotton into high quality print and in 1887 the sector opened new markets by shipping goods to China (ibid). However, the problem of regulating prices continued; as long as prices fell the impetus to break rank and cut prices were considerable (Naylor, 2006 p.170). “In this case it was clear that merger was the only solution to the stabilization problem, and for cotton, with its interlocking directorship at least in the Montreal area, its links to the banks, and its corporate organization, merger was a relatively easy step” (ibid).

**Mergers and Acquisitions**

In 1890 Morrice and Gault merged seven gray mills into Dominion Cotton Mill Ltd., and another seven into Canada Colored Cotton Ltd. 1892. Although the growth and diversification of the textile industry between 1911 and 1940 resulted in the appearance of a number of new firms, the degree of corporate concentration achieve during the decade 1901-10 was maintained, and in some areas extended via interlocking directorship (McCullough, 1945 p.83). Despite the 1890 and 1892 mergers, textile prices, continued to fall. In 1904 the major cotton interests: Dominion Cotton Mills, the Merchants’ Cotton Co. Ltd., Montmorency Cotton, and Colonial Bleaching and Print Co. merged into Dominion Textile Co. Ltd. (ibid). Competition between the major cotton firms were kept to a minimum: Dominion Textile, Canadian Cottons, Montreal Cotton, and Wabasso; each specialized in their own types of products (ibid). Control in the synthetic-fiber production sector was even more concentrated (ibid). Such concentration resulted in exploitive schemes, for example price fixing.

In the 1920s and 1930 Canada had favorable trade balance with Japan; however, Japan complained of unjustifiably high tariffs on synthetic fibers and silks (ibid). After a brief period of counter sanctions Canada agreed to reduce the tariffs (ibid). The textile companies

48 See Appendix for short biography on David Morrice and Andrew F. Gault.
protested that they could not compete under these conditions, and on January 17th, 1936 Dominion Textile closed its rayon division (Turgeon, 1983 p.12). The Canadian Government launched a formal investigation on the entire textile industry in response to these protests. The investigation revealed that there was significant over capitalization in the textile industry resulting from unnecessary tariffs. This investigation was intended as a fact finding mission in order to give the government and objective view of the state of the textile industry but it lead to the indictment of 8 companies for tax evasion.

In the Canadian case it is clear that related lending contributed significantly toward industrial concentration of the cotton textile industry. This concentration gave the companies the political influence they needed to effectively lobby the government to raise unwarranted tariffs. Although these tariffs incubated infant industries, combined with industrial concentration it created an environment of narrow-mindedness and laziness on the part of management. They saw no need to innovate because profits were easy. The British cotton machinery manufacturers furthered the entrenchment of deep rationalization by selling machines that could produce only one kind of product, Grey cotton cloth. The industrial concentration among the Montreal merchant progeny only survey to reinforce path dependencies set by antecedent conditions of colonial staple trade; according to Austin, who studied the management of the Dominion Textile Company in-depth, “the textile companies which formed the antecedents of Dominion Textile ran their firms with the goal of maximizing short-term profit”. This is precisely the kind of strategy used in the commodity trade whose end goal is quick turnover. Whether this strategy is suitable or not is beyond the scope of this paper but what is known is that this strategy lead to situation were Canadian cotton textile product lines were not diverse enough to compete internationally, and after over production they could not be traded at home either this lead to mass layoffs and economic stagnation in the regions where these mills operated.

49 They had influence because they employee many people, contributed significantly toward the GNP, and was a large revenue generator.
50 It is doubt that they did this intentionally. The machines were probably the surplus from their own over-production; machine which could not be marketed anywhere else.
Empirical Analysis - Quantitative

5.1 Statistical results

Table 3
Estimated Size of the Textile Industries of Brazil, Mexico, USA, and Canada

<table>
<thead>
<tr>
<th>Textile Type</th>
<th>No. Of Mill</th>
<th>No. of Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>956</td>
<td>135,369</td>
</tr>
<tr>
<td>Canada</td>
<td>289(8)</td>
<td>5,443(745)</td>
</tr>
<tr>
<td>Brazil</td>
<td>9</td>
<td>768</td>
</tr>
<tr>
<td>Mexico</td>
<td>65</td>
<td>-</td>
</tr>
<tr>
<td>1880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>756</td>
<td>172,541</td>
</tr>
<tr>
<td>Canada</td>
<td>1,445(18)</td>
<td>11,958(3,527)</td>
</tr>
<tr>
<td>Brazil</td>
<td>43</td>
<td>3,600</td>
</tr>
<tr>
<td>Mexico</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>1,055</td>
<td>302,861</td>
</tr>
<tr>
<td>Canada</td>
<td>229(20)</td>
<td>22,720(12,029)</td>
</tr>
<tr>
<td>Brazil</td>
<td>110</td>
<td>37,159</td>
</tr>
<tr>
<td>Mexico</td>
<td>134</td>
<td>27,767</td>
</tr>
<tr>
<td>1910</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>1,324</td>
<td>378,880</td>
</tr>
<tr>
<td>Canada</td>
<td>181(26)</td>
<td>25,917(13,041)</td>
</tr>
<tr>
<td>Brazil</td>
<td>161</td>
<td>45,942</td>
</tr>
<tr>
<td>Mexico</td>
<td>123</td>
<td>31,963</td>
</tr>
<tr>
<td>1920</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>1,496</td>
<td>446,852</td>
</tr>
<tr>
<td>Canada</td>
<td>230(31)</td>
<td>37,162(17,624)</td>
</tr>
<tr>
<td>Brazil</td>
<td>202</td>
<td>78,911</td>
</tr>
<tr>
<td>Mexico</td>
<td>120</td>
<td>37,936</td>
</tr>
<tr>
<td>1930</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>1,281</td>
<td>424,916</td>
</tr>
<tr>
<td>Canada</td>
<td>262(33)</td>
<td>39,489(16,999)</td>
</tr>
<tr>
<td>Brazil</td>
<td>354</td>
<td>128,613</td>
</tr>
<tr>
<td>Mexico</td>
<td>145</td>
<td>39,515</td>
</tr>
</tbody>
</table>

Source: Canada - A.B. McCullough pp.260 and pp.247-249
USA, Mexico & Brazil – Haber 1991 p.573
*figures in bracket are number in the cotton industry.

Table 4
Percentage Distribution of Machine Equipment Cotton Yarn and Cloth Mills (1937)

<table>
<thead>
<tr>
<th>Spindles</th>
<th>Looms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5
Four-Firm Concentration of Sales for the Cotton Yarn and Cloth Companies (1935)

<table>
<thead>
<tr>
<th>Company</th>
<th>Share of the Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominion Textile Co. Ltd.</td>
<td>37.9%</td>
</tr>
<tr>
<td>Canadian Cotton Ltd.</td>
<td>17.2%</td>
</tr>
<tr>
<td>Montreal Cotton Ltd.</td>
<td>10.7%</td>
</tr>
<tr>
<td>Wabasso Cotton Co. Ltd.</td>
<td>9.8%</td>
</tr>
<tr>
<td>Four-Firm Equipment Concentration</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Source: Turgeon 1938 p.51

Table 6
Four-Firm Concentration of Sales for the Woolens Companies (1935)

<table>
<thead>
<tr>
<th>Company</th>
<th>Share of the Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominion Woolens and Worsteds Ltd.</td>
<td>14.4%</td>
</tr>
<tr>
<td>Patons &amp; Baldwins Ltd.</td>
<td>7.9%</td>
</tr>
<tr>
<td>Slingby Mfg. Co. Ltd.</td>
<td>10.7%</td>
</tr>
<tr>
<td>Barrymore Cloth Co. Ltd.</td>
<td>6.2%</td>
</tr>
<tr>
<td>Four-Firm Equipment Concentration</td>
<td>0.39</td>
</tr>
</tbody>
</table>

Source: Turgeon 1938 p.51

Table 7
Control of Capital Invested in Canadian Manufacturing Plants (1933)

<table>
<thead>
<tr>
<th></th>
<th>Silk</th>
<th>Woolen</th>
<th>Hosiery</th>
<th>Knit Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian</td>
<td>69.2</td>
<td>83.7</td>
<td>54.6</td>
<td>98.7%</td>
</tr>
<tr>
<td>United States</td>
<td>20.8</td>
<td>5.3</td>
<td>23.5</td>
<td>0.9%</td>
</tr>
<tr>
<td>Great Britain</td>
<td>10</td>
<td>11.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Canadian and United States (jointly)</td>
<td>-</td>
<td>-</td>
<td>21.9</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Turgeon 1938 p.51

Table 8
Estimate of Four-Firm: Brazil, Mexico, USA and Canada in 1930s

<table>
<thead>
<tr>
<th>Circa</th>
<th>USA</th>
<th>Brazil</th>
<th>Mexico</th>
<th>Canada</th>
<th>Mexico/USA</th>
<th>Brazil/USA</th>
<th>Canada/USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>.100</td>
<td>.416</td>
<td>.282</td>
<td>4.16</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1900</td>
<td>.070</td>
<td>.224</td>
<td>.168</td>
<td>4.03</td>
<td>3.20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1910</td>
<td>.075</td>
<td>.168</td>
<td>.287</td>
<td>3.83</td>
<td>2.24</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1930</td>
<td>.095</td>
<td>.161</td>
<td>.261</td>
<td>.427</td>
<td>.275</td>
<td>.170</td>
<td>.449</td>
</tr>
</tbody>
</table>

USA, Mexico & Brazil – Haber 1991 p.574
Table 9
Number of Private Banks in Canada, 1880-1914

<table>
<thead>
<tr>
<th>Province</th>
<th>1881</th>
<th>1885</th>
<th>1890</th>
<th>1895</th>
<th>1900</th>
<th>1905</th>
<th>1910</th>
<th>1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario</td>
<td>143</td>
<td>136</td>
<td>133</td>
<td>151</td>
<td>146</td>
<td>77</td>
<td>51</td>
<td>31</td>
</tr>
<tr>
<td>Quebec</td>
<td>13</td>
<td>11</td>
<td>12</td>
<td>14</td>
<td>12</td>
<td>15</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>174</td>
<td>169</td>
<td>179</td>
<td>202</td>
<td>201</td>
<td>136</td>
<td>97</td>
<td>61</td>
</tr>
</tbody>
</table>

Source: Naylor p.162

Table 10
Banks Operating, 1867-1914

<table>
<thead>
<tr>
<th></th>
<th>Failures</th>
<th>Mergers</th>
<th>New Charters</th>
<th>New Banks Operating</th>
<th>Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1867-1900</td>
<td>20</td>
<td>3</td>
<td>48</td>
<td>28</td>
<td>+5</td>
</tr>
<tr>
<td>1901-1914</td>
<td>7</td>
<td>19</td>
<td>33</td>
<td>11</td>
<td>-15</td>
</tr>
</tbody>
</table>

Source: E. P. Neufeld, Financial System, pp. 79-79

Table 11
Relative Sizes of Chartered Banks in Percent, 1870-1987

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9 major Chartered Banks</td>
<td>51</td>
<td>24</td>
<td>.2</td>
<td>.6</td>
<td>23.8</td>
<td>11.4</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Two Largest Chartered Banks</td>
<td>34.6</td>
<td>36.8</td>
<td>52.8</td>
<td>47.8</td>
<td>34.69</td>
<td>39.18</td>
</tr>
<tr>
<td>Five Largest Chartered Banks</td>
<td>43.7</td>
<td>64.4</td>
<td>85.5</td>
<td>92.9</td>
<td>70.7</td>
<td>82.4</td>
</tr>
</tbody>
</table>

Source: Kaufman p.14

5.2 Discussion

Textile Static Results

Due the scarcity of data it is difficult to compare all elements of the theory with quantitative data but some distinct patterns appear. Aggregately, Canada has about the same size industry as Mexico and Brazil (table 3). Also active cotton mills make up a small fraction of the overall industry (table 3). The cotton industry is highly concentrated both in production capacity and sales output (table 4 and 5 respectfully). Comparatively the four-firm concentration is considerably less for woolen (39%) than for cotton (75%) (tables 5 and 6). Almost 30% of the synthetic silk market is foreign owned (table 7). The four-firm concentration comparison with Haber’s data shows that Canada is the most concentrated textile industry in 1930 compared to the other countries (table 8). Also each country has been getting progressively less concentrated. Although there isn’t data available on Canada’s passed concentration the historical accounts suggests that it was less concentrated before 1930 in the cotton textile industry.
Banking Static Results

The private banking data shows that the number of private banks in operation in Canada is getting smaller (table 9). The share of the chartered banks is also highly concentrated. In 1930 the top five chartered banks held 92.9% market share (table 11).

Conclusion

In conclusion, the Canadian case concurs with Haber’s theory that excessive restrictions on finance imply concentrated industry but it also shows that concentrated industry can occur in the absence of corrupt or authoritarian regimes, and in a economically developed region like Canada. In Canada financial restrictions were the result of path dependencies initiated during the colonial period. This set the antecedent conditions for systemic discrimination against funding industrial operations. The bankers were not against industrial ventures per se but they had conservative attitudes about how industry should be funded. The Montreal merchants built their empire on commerce, they trust this business. To them it became an axiom that short-term lending was the only kind of lending commercial banks should engage in with the public. The Montreal merchant’s monopoly further entrenched these ideas because there was little competition to make them believe otherwise.

As Lamoreaux and Davis pointed out some industrial ventures do get funded via insider lending because the creditor trusts the debtor, who are usually friends or close acquaintance. In the cotton industry there were three main figures - Sir Charles Gordon, Andrew Frederic Gault and David Morrice – who played this major role in the industrialization of Canada. They were able to do so by virtue of their connection with the Montreal merchants and their ability to use that connection to acquire long-term loans. Other early industries in Canada, like woolen, lacked these key players thus had less concentrated industry.

In the early cotton mills when the financiers questioned the managerial acumen of the early cotton mill managers they were demoted and the dry goods merchants took over. The merchants believed managing a factory was like trading commodities. Rationalization was

51 In Canada private banks were the closest institution to country banks but the Bank Act severely restricted their operations. For example they were not allowed to collect deposits for the public.

52 Haber did not assert this idea but it is implied in his study of Mexico and Brazil.
the strategy of the day; that is until they exceeded the demand. The over-rationalization is indicated by the high four-firm equipment concentration of equipment: 88% (see table 4). What are four firms doing with 88% of the entire industry’s equipment capital!? Thereafter the textile firms had to force each other to innovate! It is not surprising to find that 30% of the Canadian synthetic textile industry was foreign owned (see table 7). As a result of there focus on production, early cotton textile merchants neglected to innovate and were left behind. For example, W.F.A. Turgeon of the Royal Commission on The Textile industry found that in the 1930s there were only two rayon plants in Canada both were foreign owned, one by a British firm and the other by an American firm (Turgeon, 1938 p.98). It’s an indication of the over-rationalization of the Canadian textile industry that inhibited there technical progress stemming from the conservative attitudes of the Montreal merchants.

This article examined antecedent conditions present during the colonial period and how it influences restrictive finance practices in Canada. The study has found a significant casual relationship between financial restrictions and industrial concentrations. This study has also found a significant causal relationship between restrictive financial institutions and insider lending. We have uncovered much insight into the working of financial institutions and how they shape industry. Future considerations would be to look more in-depth at woolen industries in the US, Canada, and Mexico and Brazil. It seems that the industries, which started as small operations- were able to resist the merging tendencies and industrial concentration. According to the data the woolen industry was much less concentrated, probably due to its origins in small farm towns dispersed across the country. It would be interesting to see what characteristic the woolen industry shows in other countries and what story it tells.
References


Clark, Gregory. 2007 Farewell to Alms: a brief economic history of the world. Princeton University Press


Appendix

Tables

Table 1
Per Capita GDP and Population

<table>
<thead>
<tr>
<th>Year</th>
<th>US &amp; Canada (1990)</th>
<th>30 Caribbean Countries</th>
<th>Mexico</th>
<th>Latin American Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1820</td>
<td>1,231</td>
<td>636</td>
<td>759</td>
<td>692</td>
</tr>
<tr>
<td></td>
<td>Population in 000</td>
<td>10,797</td>
<td>2,920</td>
<td>6,587</td>
</tr>
<tr>
<td>1700</td>
<td>511</td>
<td>650</td>
<td>568</td>
<td>527</td>
</tr>
<tr>
<td></td>
<td>Population in 000</td>
<td>1,200</td>
<td>500</td>
<td>4,500</td>
</tr>
<tr>
<td>1600</td>
<td>400</td>
<td>430</td>
<td>454</td>
<td>438</td>
</tr>
<tr>
<td></td>
<td>Population in 000</td>
<td>1,750</td>
<td>200</td>
<td>2,500</td>
</tr>
</tbody>
</table>

Source: Maddison 2003 p.114

Table 2
Per Capita GDP: Mexico, Brazil, Canada and USA.

<table>
<thead>
<tr>
<th>Year</th>
<th>Mexico</th>
<th>Brazil</th>
<th>Canada</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1820</td>
<td>-</td>
<td>1,011</td>
<td>1,000</td>
<td>1,376</td>
</tr>
<tr>
<td>1890</td>
<td>1,011</td>
<td>794</td>
<td>1,330</td>
<td>1,806</td>
</tr>
<tr>
<td>1900</td>
<td>678</td>
<td>1,366</td>
<td>2,911</td>
<td>4,091</td>
</tr>
<tr>
<td>1930</td>
<td>1,048</td>
<td>1,618</td>
<td>4,811</td>
<td>6,213</td>
</tr>
</tbody>
</table>

Source: Mexico and Brazil (Maddison, 2003 pp.142-143)
Canada and the US (Maddison, 2003 pp.86-87)

Figures

Figure 1
First successful French settlements in North America: Port Royal (1605), and Quebec (1608). English settlement in Virginia begins (1606-07). French and English territorial claims overlap Acadia. Acadia is recognized as French possession by the Treaty of Breda (1667). A Royal Charter (1670) grants sole trading rights in Hudson Bay drainage basin to the Hudson’s Bay Co.

Source: Library and Archives Canada
Source: 2001 Government of Canada